

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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***EX PARTE***

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**US Patent Application Number 09/844,933**

**Applicant(s):** Bryan K. Chan and Lawrence F. Chu  
**Title:** METHOD AND SYSTEM FOR MANAGING DISEASE AND  
WELLNESS ONLINE  
**Serial No.:** 09/844,933  
**Filing Date:** 04/26/2001  
**Examiner:** Michael Tomaszewski  
**Group Art Unit:** 3626  
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**APPEAL BRIEF**

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CERTIFICATE OF MAILING

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Signed: / joe zheng /  
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## **I. REAL PARTY IN INTEREST**

savvyHEALTH.com, Inc. located at 2600 18th Street, San Francisco, CA 94110

## **II. RELATED APPEALS AND INTERFERENCES**

None

## **III. STATUS OF THE CLAIMS**

Claims 1-54 are now pending. On September 4, 2007, the Appellant appealed from the rejections of Claims 1-54 that are rejected under 35 USC 103(a) as being unpatentable over a number of publications. In particular, Claims 1-9, 18-29, 38-46 and 54 are rejected under 35 USC 103(a) as being unpatentable over Joao (US Patent No.: 6,283,761, hereinafter "Joao") in view of Campbell (US Patent No.: 6,047,259, hereinafter "Campbell"), and in view of Hendee (Hendee, William, "The Perception of Visual Information", 1997, 2<sup>nd</sup> Edition, Springer Veritag, NY, P.326, hereinafter "Hendee"), Claims 10-17, 30-37 and 47-53 are rejected under 35 USC 103(a) as being unpatentable over Joao in view of Campbell, in view of Hendee, and further in view of LaPointe et al (US Patent No.: 2001/0023419, hereinafter "LaPointe"), and Claims 30-37 are rejected under 35 USC 103(a) with the similar references as used for claims 1-20.

## **IV. STATUS OF AMENDMENTS**

Claims 1-54 were initially filed, dated 04/26/2001;

Claims 1, 7, 10, 14, 18, 20-23, 30, 34, 37-38, 50 and 54 were amended in a Response dated 08/18/2006 to a first Office Action dated 05/19/2006;

Claims 1, 21 and 38 were amended in a preliminary amendment dated 12/19/2006 in a RCE request as a Response to a final Office Action dated 09/29/2006; and

Claims 1, 21 and 38 were amended again in Supplemental amendments to Preliminary amendments dated 12/19/2006.

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

The invention relates to an Intelligent Health Management Technology (IHMT) system. The system is configured to facilitate and improve the management of various diseases (e.g., chronic diseases) in conjunction with multi-domain health and wellness programs. The system collects personal health information directly from a user (e.g., a patient) and medical record data and analyzes the information, and makes physician-like recommendations based on the available data where the recommendations may include computer generated recommendations and input from participating third parties (i.e., doctors, dieticians, pharmacists etc.). More specifically, the present invention utilizes intelligent agents, network based software application modules having definable access levels, digital credentials, access rules and personalized contact lists to facilitate access to and utilization of the associated data stores and resources by various participants (i.e., patients, doctors, pharmacists, family members etc.) in the health and wellness program.

According to an embodiment of the present invention, an IHMT system is provided with a health knowledgebase that includes medical decision-making intelligent agents, access to clinical research information, and related health databases. Additionally, the IHMT provides resources for registering and coordinating a plurality of patient “health and wellness partners” and providing controlled access to data depositories and resources controlled by the various participants (i.e., primary care physician, endocrinologist, dietician, pharmacist, family members etc.) in accordance with non-reputable agreements, terms of use and the applicable statutes for the parties and jurisdictions involved. The information is remotely accessed using networked terminal devices (i.e., personal computers, network enabled cellular phones, personal digital assistants (PDAs), two way pagers, etc.) by authorized health and wellness participants for the purpose of assisting in health in wellness programs for individuals and groups.

In operation, a registered user (e.g., a patient) provides data regarding a health condition being experienced by the user. The data may be dynamically generated/input by the user (e.g., an uncomfortable symptom or unusual feeling or a test result). Once receiving the data, the IHMT system is configured to filter the data,

essentially removing those unrelated information pertaining to the health condition or asking the user to correct or modify some of the data. The filtered data is then analyzed in conjunction with various resources including consultation with physicians, updated medical databases and information about a group of people in the similar health condition. In the end, the IHMT system sends out a physician-like recommendation to the user as to what to do with the health condition currently experience by the user. Should the IHMT system notice any extraordinary in the filtered data, for example, a blood sugar level that is abnormally high for an extended period of time for this user with diabetes, the IHMT system is configured to alert a related third party for immediate attention. One of the key features in the invention is the recommendation provided to a user is through simulated medical decision-making process and based on general medical decision making principles, common sense principles, and specific logic for a specific health condition.

In accordance with 37 CFR 41.37 (c)(1)(v) "A concise explanation of the subject matter defined in each of the independent claims involved in the appeal, which must refer to the specification by page and line number, and to the drawing, if any, by reference characters." All page and line numbers and the drawing, as used in the Specification as originally filed, are in *italic* and inserted directly in the independent claims below.

1. A method for managing diseases and wellness online, the method comprising:
  - receiving patient data over a network from a user regarding a health condition being experienced by the user; (*line 27 of page 7 to line 19 of page 8, and FIG. 1*)
  - filtering the patient data according to a first database to produce filtered patient data, (*lines 17-26 of page 18, lines 29-31 of page 32, and FIG. 2B*) wherein the filtering of the patient data comprises:
    - discarding some of the patient data that is not so related to the health condition; (*lines 19-22 of page 18, and FIG. 2B*) and
    - requesting correction or verification on some of the patient data with the user when the patient data appears abnormal according to the first database; (*lines 10-11 of page 19*)

performing an analysis of the filtered patient data, (*lines 8-10 of page 19, lines 9-18 of page 33, and FIG. 2B*) the analysis including one or more of statistical analysis implemented based on a survey among a group of similar people with respect to the health condition in the filtered data (*lines 12-15 of page 19*), data variability analysis, trend forecasting, significance of data, distribution of data, projection of data, computation of trends, linear and non-linear regression techniques, curve-fitting methods, or numerical analyses; (*lines 15-26 of page 19*)

outputting directly to the user (*lines 8-10 of page 23*), in response to the filtered patient data, a medical recommendation (line 30 of page 34 to line 15 of page 35) of the health condition based on a second database that includes medical decision-making intelligent agents, accesses to clinical research information, related health databases or resources controlled by various professional participants, wherein the medical recommendation includes what the user is suggested to do in regarding to the health condition; (*lines 15-27 of page 23, lines 21-30 of page 24, and FIG. 3I*) and alerting automatically through the network related parties regarding the user if the health condition is deemed to be attended by professionals. (*lines 5-12 of page 25*)

21. A method for managing diseases and wellness online, the method comprising:
- maintaining an account associated with a user having a health condition; (*line 5 of page 13 to line 10 of page 14*)
  - receiving over a network a request from the user to access the account; (*lines 8- 10 of page 13*)
  - composing a number of questions from the account after the user is authenticated; (*lines 20-27 of page 17*)
  - receiving data from the user in response to the questions, wherein the data includes answers to the questions and diagnostic data if received from a diagnostic test device pertaining to the health condition; (*lines 27-29 of page 17, and 11-15 of page 18*)
  - filtering the patient data according to a first database to produce filtered patient data, (*lines 17-26 of page 18, lines 29-31 of page 32, and FIG. 2B*)

wherein the first database includes common knowledge database about the health condition and is being constantly updated with other related servers on the network, (*lines 17-26 of page 18, lines 29-31 of page 32, and FIG. 2B*) wherein the filtering of the patient data comprises:

discarding some of the patient data that is not so related to the health condition; (*lines 19-22 of page 18, and FIG. 2B*) and

requesting correction or verification on some of the patient data with the user when the patient data appears abnormal according to the first database; (*lines 10-11 of page 19*)

performing an analysis of the patient data to discard some of the patient data that is not so related to the health condition (*lines 8-10 of page 19, lines 9-18 of page 33, and FIG. 2B*), the analysis including one or more of statistical analysis implemented based on a survey among a group of similar people with respect to the health condition in the filtered data (*lines 12-15 of page 19*), data variability analysis, and trend forecasting, significance of data, distribution of data, projection of data, computation of trends, linear and non-linear regression techniques, curve-fitting methods, or numerical analyses (*lines 15-26 of page 19*);

providing directly to the user a medical recommendation (line 30 of page 34 to line 15 of page 35) of the health condition based on a second database that includes medical decision-making intelligent agents, accesses to clinical research information, related health databases and resources controlled by various professional participants, wherein the medical recommendation includes what the user is suggested to do in regarding to the health condition (*lines 15-27 of page 23, lines 21-30 of page 24, and FIG. 3I*); and

alerting related parties regarding the user if the health condition is deemed to be attended by professionals. (*lines 5-12 of page 25*)

38. A machine-readable medium embodying instructions for execution by a processor, the instructions, when executed by the processor, causing the processor to produce structured documents, the machine-readable medium comprising:

program code for receiving patient data over a network from a user regarding a health condition experienced by the user (*line 27 of page 7 to line 19 of page 8, and FIG. 1*);

program code for filtering the patient data according to a first database to produce filtered patient data (*lines 17-26 of page 18, lines 29-31 of page 32, and FIG. 2B*), wherein the filtering program code comprises:

- program code for discarding some of the patient data that is not so related to the health condition (*lines 19-22 of page 18, and FIG. 2B*);
- and
- program code for requesting correction or verification on some of the patient data with the user when the patient data appears abnormal according to the first database (*lines 10-11 of page 19*);

program code for performing an analysis of the patient data (*lines 8-10 of page 19, lines 9-18 of page 33, and FIG. 2B*), the analysis including one or more of statistical analysis implemented based on a survey among a group of similar people with respect to the health condition in the filtered data (*lines 12-15 of page 19*), data variability analysis, and trend forecasting, significance of data, distribution of data, projection of data, computation of trends, linear and non-linear regression techniques, curve-fitting methods, or numerical analyses (*lines 15-26 of page 19*); and

program code for outputting directly to the user (*lines 8-10 of page 23*), in response to the received patient data, a medical recommendation (*line 30 of page 34 to line 15 of page 35*) of the health condition based on a second database that includes medical decision-making intelligent agents, accesses to clinical research information, related health databases and resources controlled by various professional participants, wherein the medical recommendation includes what the user is suggested to do in regarding to the health condition (*lines 15-27 of page 23, lines 21-30 of page 24, and FIG. 3I*); and

program code for alerting related parties regarding the user if the health condition is deemed to be attended by professionals (*lines 5-12 of page 25*).



## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

The grounds of rejection which the Appellant believes to be most pertinent to the present appeal include the following issues:

- A. whether the Examiner has been preset in a condition to dispose the instant application quickly or advance it to a final rejection without trying to understand the limitations evidently different from the cited references; and
- B. whether the Examiner failed to establish a *prima facie* case of obviousness. It is respectfully believed that the final Rejections failed to consider each recited elements in claims 1, 21 and 38 and did not show how each element is taught or suggested in the cited references, viewed alone or in combination.

## **VII. ARGUMENT**

1. Arguments with respect to Issue A:

After receiving the Final Rejection dated 09/29/2006, the Appellant made a call in the beginning of November, 2006 to request an interview in accordance with MPEP 713.09. Having received no response from the Examiner for three weeks, the Appellant called again. Eventually, the Examiner called back on 12/8/2006 and implied that the interview might not be helpful because the art unit specialized in this particular art allowed a very low percentile of applications because of the internal pressures. In addition, he stated that he was very busy near the end of the year and it would be difficult to accommodate the request for an interview prior to the 3-month deadline of 12/29/06. To preserve the pending status of the instant application, the Appellant filed a request for continued examination (RCE), explicitly requesting an interview with the Examiner in writing.

The interview finally took place with the Examiner, Ms. Carolyn Bleck (The Examiner's supervisor), the inventor and the undersigned on 1/11/2007. As a physician at the Stanford University School of Medicine, the inventor explained what each of the cited references does or means in real life, and their subtle differences from his invention, and the undersigned presented arguments to differentiate the instant invention and the cited references. The arguments further pointed out that the combination of the references in the final rejection were improper because one of the

references was for a computer program that is used to help veterinarians and nurses exam animals (e.g., dogs). However, the USPTO stated that the combination was proper as animals are living things and could be interpreted as users in this instant application, without considering the fact that one system is being used by someone (i.e., a nurse or veterinarian) to care a patient (i.e., a dog) and the other one is used by a patient him/herself. Although the Appellant realized that the claims were being interpreted beyond the reasonable construction, all agreed that additional limitations could be added to further overcome the references. It was suggested that a supplement amendment to the RCE might be filed to introduce the limitations. The Examiner agreed to wait for and consider such a supplement amendment before issuing a next office action.

The Examiner, however, issued another rejection before receiving the supplement amendment and issued the Final Rejection based on the supplement amendment. In other words, and as will be further presented in the next section, the Examiner seemed eager to advance the case to a final rejection without trying to understand the differences between the amended claims and the cited references.

## 2. Arguments with respect to Issue B:

Claim 1 is rejected under 35 USC 103(a) as being unpatentable over Joao in view of Campbell, and further in view of Hendee. The Examiner has repeatedly acknowledged that Joao has failed to expressly disclose a method of managing diseases and wellness online but cites Campbell, and Hendee in combination to reject claim 1.

The Appellant respectfully contests the combination of Joao, Campbell and Hendee as it is believed that there is no motivation to combine these references in the manner proposed by the Examiner, or such combination would make a system so designed per the combined references operatively useless. Nevertheless, even if these references were to be combined, the combination would still fail to teach or suggest the combined features recited in the Claim 1. As it will be seen below that a system built based on the combination would not be functioning.

Joao teaches a system for providing healthcare information and/or healthcare-related information and designed to facilitate storage and retrieval of medical

information for physicians. Joao essentially describes an “electronic medical record,” that can be used by a health care provider, insurance company, or patient. Joao does not explicitly teach a method for managing disease or wellness online, as acknowledged by the Examiner. Joao teaches explicitly that a physician can use the “database” to generate reports which are sent back to the physician. In contrast, the instant application teaches an automated intelligent system embodied with medical reasoning that can interact directly with a patient to manage his/her disease or wellness. The difference between “generating a report from a record” and “managing a disease by patient him/herself is emphasized should be noted. Furthermore, Joao teaches clearly in FIG. 7A and FIG. 7B that a diagnostic report and a treatment report are supplied directly to a provider (e.g., a medical doctor), not the user (patient him/herself). Because Joao teaches about managing various electronic medical records for a health provider, not managing diseases and wellness as agreed by the Examiner, the diagnostic report and the treatment are certainly supplied to a medical doctor. Ironically, the instant application is to provide a self-care mechanism for a patient to manage his/her own diseases, perhaps before seeing a doctor, so the medical recommendation, which is produced without physician input, is directly provided to the patient.

The Examiner rebutted the above argument in Section 5 of the Final Rejection to show that Joao states “any patient, user, provider, payer, and/or intermediary, may utilize the present invention in the same, similar and/or analogous manner” (Joao: lines 31-33 of Col. 4). *It is believed that the Examiner reads this sentence out of context.* First of all, it seems that the Examiner is self-contradictory to his arguments and reasons for rejection. On one side, the Examiner believes that the diagnostic report and the treatment report could also be supplied to a patient him/herself. If it was the case, Joao’ system would become a system of patient managing diseases and wellness online. But, on the other hand, the Examiner has repeatedly acknowledged since the very First Office Action that Joao has failed to expressly disclose a method of managing diseases and wellness online.

Secondly, it is respectfully submitted what Joao states is that the system could be used by anyone, but the diagnostic report and the treatment report are provided to the physician which are described by Joao in FIG. 7A and FIG. 7B and in line 66 of

col. 24 to line 9 of col. 25 . The report created by Joao's invention can be accessed by the patient, but only for ascertaining the correctness of the report (Joao: Col 25, line 8).

Thirdly, Joao teaches that when the physician receives the report, the doctor must "choose the final diagnosis" to administer to the patient (Joao: Col 25, line 58-62). If the Examiner believes that Joao's apparatus can be used by anyone, then it can be only used by individuals skilled in the art of medicine; otherwise, they would have no ability to "choose the final diagnosis" for themselves. This makes Joao's apparatus only useful to patients who themselves are physicians. Thus, Joao teaches away from the instant application which describes a system that can be used by anyone who is *not* skilled in the art of medicine and has to seek "medical recommendation" from the professional.

Examiner has also rejected claim 1 based on the argument that Joao's apparatus can also output a medical recommendation to the user. The Examiner cites Joao: Col 4, lines 39-47 which states how "the present invention can be utilized to create and to maintain comprehensive patient databases ... to perform healthcare related diagnosis ...". It is respectfully submitted that the Examiner has cited this out of context. This statement clearly states that Joao's apparatus is used to first create a database, and after this step, this database can then be used for "healthcare related diagnosis." Clearly, Joao's apparatus teaches an *indirect* and non-obvious method. The instant application provides a *direct* a method to manage disease and wellness. Secondly, it is respectfully submitted that the Examiner fails to understand the difference between Joao's "reports" and the instant application's "medical recommendation". Joao describes the content of his reports to contain a single diagnosis or list of possible diagnoses (Joao: Col. 25, line 41-44; Abstract). Managing diseases and wellness is an ongoing process that is more complex than the generation of a report that contains a single diagnosis or a list of possible diagnoses. The instant application teaches outputting a "medical recommendation" that suggests exactly what the user (e.g., patient) should do next, not just a simple diagnosis or a list of possibilities (see lines 15-27, page 23; lines 20-27, page 25; lines 27-29, page 25 to lines 5-11, page 26, of the instant application). Patients, who are not skilled in the art of medicine, would not know what to do next given only a

diagnosis. Even if it is argued that Joao's invention creates a single diagnosis and treatment plan, those skilled in the art of medicine know that a treatment plan only describes the overall scheme of the treatment and does not provide sufficient information for a patient to understand specifically what they must do next. For example, the diagnosis of "diabetes" has the main treatment plan of "controlling blood glucose levels", but there are many ways to achieve this goal, which is known to those skilled in the art of medicine but largely unknown to the general public. Lastly, the Examiner also uses all of the figures in Joao (FIGs. 1 through 15B) to reject a limitation of "receiving patient data over a network from a user (i.e., a patient), page 3 of the Office Action. It is respectfully submitted that the Examiner cites this out of context. Joao's FIGs. 1 through 15B teach something else and are not related to this limitation recited in claim1 of this instant application. It should be noted that FIG. 15B in Joao describes a process for using Joao's apparatus for "training simulation" which is not related to the instant application claims (Joao: Col 38, lines 18-25 and Col 39, lines 19-25).

Examiner has also rejected claim 1 with the reason that Joao's apparatus can also alert related parties (Joao: Col. 5, lines 7-18, cited by the Examiner). However, the instant application teaches that related parties will be automatically contacted *if the data provided by the patient is abnormal*, while Joao only shows that all computers that are connected will receive various messages (Joao: lines 7-18 of Col. 5, depended upon by the Examiner). In other words, Joao does not distinguish what specific information is transmitted to which computers on the network. Evidently Joao teaches away from the combination of "*outputting directly to the user*" and "*alerting automatically through the network related parties regarding the user...*".

Contradictorily, the Examiner at the same time admits that Joao does not teach "filtering the patient data ..." and "*alerting automatically through the network related parties regarding the user*" (page 4 of the Final Rejection), and thus cites Hendee and Campbell in combination. However, Hendee teaches something related to "Perception of Visual Information" and specifically states in section 10.4.8 "*because there is potentially a vast amount of medical knowledge that could be useful during any decision-making episode, one of the most effective uses of computer in support of clinical decision making in medicine is to filter knowledge for*

*their human users. Provided with information about the problem that the clinician is dealing with (directly from the clinician, or from Information systems containing the patient's electronic medical record"*. Evidently, it is erroneous to mix up the data being provided by the user (i.e., the patient), as recited in claim 1 of the instant application, with the medical knowledge. Hendee states clearly to filter medical knowledge, and further states the data may be from the *clinician* or from a system containing the electronic medical record. Essentially, Hendee teaches a decision support system for physicians, not their patients. Hendee describes that his process is an iterative process that is modified after receiving successive feedback from the physician. In other words, his data filtering is cyclical and dependent on constant physician input in order to arrive at a conclusion (Hendee, section 10.4.8). The instant application teaches a method comprised of knowledge filtering that is automated and independent from the physician input.

On page 5 of the Office Action, the Examiner uses Campbell to reject two limitations recited in claim 1 of the instant application. First, the Examiner believes that Col. 9, lines 65-66 of Campbell teaches about the correction or verification of some of the patient data with the user. However, the paragraph starting 65 of Col. 9 to line 13 of Col. 10 shows clearly that the client data is "static" in a sense that they that do not change in real-time in response to a health condition. Specifically, col. 9, lines 65-66 of Campbell deals with verifying information about a person's pet when the pet is checked into the hospital (i.e., "pets' gender, spayed or neutered status, tendency to bite"). In particular, the patient information in Campbell relates to static demographic information of a patient (e.g., an animal) and is used for checking a patient (e.g., a pet) into a veterinary clinic. When a receptionist changes the patient information, it is for check-in purpose, not related to the health condition being experienced by the patient. Campbell's verification of static patient demographic information should not be extrapolated to a verification of dynamic real-time patient clinical and qualitative data as described in the instant application.

On page 6 of the Office Action, the Examiner also cites all of the figures (Fig 1-14) in Campbell to reject the aforementioned two limitations in claim 1 of the instant application. It is respectfully submitted that the Examiner cites these out of context.

For example, Fig. 7 of Campbell shows a diagram of an animal being taken care of and is believed unrelated to the claims of the instant application.

Next, the Examiner believes that Campbell teaches about automated alerting. However, Campbell teaches, in lines 47-51 of Col. 13, the user to mark certain medical data normal and not normal. In this example, the nurse marks data that is normal or abnormal for a doctor to look at. There are at least two subtle differences evidently overlooked by the Examiner. First of all, the instant application provides a system that can identify whether something is normal or abnormal automatically without human intervention (e.g., physician or nurse). Secondly, Campbell's invention contains no "notification process" as described in the instant application. Campbell's invention only allows a nurse to color code information as green (normal) or red (abnormal). It is assumed that the nurse has limited knowledge and can only determine some of the findings, the rest are unmarked and left for the doctor to interpret when he/she reviews the patient information. In Campbell, the act of marking information "red (abnormal)" does not trigger an automatic alert to the physician, as interpreted by the Examiner. The doctor will only see the green (normal) or red (abnormal) flags when he/she decides to review the patients chart. The Appellant respectfully submits that there is no any teaching or suggestions about "alerting automatically through the network related parties regarding the user if the health condition is deemed to be attended by professionals".

On page 21 of the Final Rejection, the Examiner has nothing to rebut but states that the Applicant attacks the reference individually. Campbell teaches a system for animals that requires the direct involvement of a nurse to use the system and assess for abnormalities. If the "user" of claim 1 in the instant application was interpreted to mean "an animal," the Appellant respectfully asks the Examiner how an animal would directly receive a medical recommendation (i.e., "outputting directly to the user a medical recommendation of the health condition"), and how to receive patient data over a network from an animal (i.e., receiving patient data over a network from a user).

If Joao, Hendee and Campbell were combined, a system so designed would not be functioning as claimed, because the instant application requires no assistant,

nurse or clinician to provide or interpret patient data that is then filtered properly for a simulated medical decision-making process, so a physician-like recommendation is provided directly to the patient him/herself. The Appellant respectfully submits the combination of Joao and Campbell is not proper and could render a system so built completely useless.

It is axiomatic that an invention in a patent application is defined by, and must be examined with respect to, the specific language in the claims. The Appellant respectfully submits that the Examiner either fails to appreciate the limitations recited in Claim 1 or misunderstood the subtle differences between claim 1 and the cited references.

Claims 21 and 38 include similar limitations recited in claim 1. The Appellant wishes to use the above arguments to support Claims 21 and 38.

## **VIII. CLAIMS APPENDIX**

1. (*Previously amended*) A method for managing diseases and wellness online, the method comprising:
  - receiving patient data over a network from a user regarding a health condition being experienced by the user;
  - filtering the patient data according to a first database to produce filtered patient data, wherein the filtering of the patient data comprises:
    - discarding some of the patient data that is not so related to the health condition; and
    - requesting correction or verification on some of the patient data with the user when the patient data appears abnormal according to the first database;
  - performing an analysis of the filtered patient data, the analysis including one or more of statistical analysis implemented based on a survey among a group of similar people with respect to the health condition in the filtered data, data variability analysis, trend forecasting, significance of data, distribution of data, projection of data, computation of trends, linear and non-linear regression techniques, curve-fitting methods, or numerical analyses;



outputting directly to the user, in response to the filtered patient data, a medical recommendation of the health condition based on a second database that includes medical decision-making intelligent agents, accesses to clinical research information, related health databases or resources controlled by various professional participants, wherein the medical recommendation includes what the user is suggested to do in regarding to the health condition; and alerting automatically through the network related parties regarding the user if the health condition is deemed to be attended by professionals.

2. (*Original*) The method of Claim 1, wherein the receiving of the patient data comprises:
  - verifying the user by looking up an account associated with the user;
  - requiring the user to set up the account if the account can not be verified; and
  - composing a number of questions based on the first database in conjunction with the account if the account can be verified.
3. (*Original*) The method of Claim 2, wherein the account lists the health condition about the user and wherein the first database includes common knowledge database about the health condition, the knowledge database being constantly updated with other related servers on the network.
4. (*Original*) The method of Claim 3, wherein the patient data includes answers from the user to the questions.
5. (*Original*) The method of Claim 1, wherein the receiving of the patient data comprises receiving diagnostic data from a diagnostic test device.
6. (*Original*) The method of Claim 1, wherein the patient data includes diagnostic data from a diagnostic test device.

7. (*Previously amended*) The method of Claim 1, wherein the first database includes a common knowledge database that is constantly updated with other related servers on the network.
8. (*Original*) The method of Claim 7, wherein the analysis includes a statistical analysis and a medical analysis of the patient data.
9. (*Original*) The method of Claim 8, wherein the performing of the analysis of the patient data comprises:
  - obtaining statistical features of the patient data through the statistical analysis;
  - determining possible causes related to the health condition out of the patient data in conjunction with the statistical features.
10. (*Previously amended*) The method of Claim 9, wherein the statistical analysis of the patient data includes at least one of a fundamental statistics, a data variability analysis, correlation analysis, causal analysis and a trend forecasting.
11. (*Original*) The method of Claim 10, wherein some of the statistical features by the fundamental statistics include mean, mode, max, min, ratios and fractions to determine an appropriate sorting algorithm.
12. (*Original*) The method of Claim 10, wherein the variability analysis determines how significant the patient data is as well as the patient data is distributed.
13. (*Original*) The method of Claim 10, wherein the trend forecasting includes a projection of the patient data, computation of trends with respect to the patient data using one or more mathematical methods.
14. (*Previously amended*) The method of Claim 13, wherein the one or more mathematical methods include one or more of linear regression techniques, non-linear regression techniques, curve-fitting methods and numerical analyses.

15. *(Original)* The method of Claim 8, wherein the performing of the analysis of the patient data comprises, through the medical analysis, evaluating a state of the health condition using a medically related logic, risk stratification, and protocols/algorithms/guidelines that pertain to the health condition.
16. *(Original)* The method of Claim 15, wherein the medically related logic is a medical modeling logic that simulates a medical decision-making process and is based on general medical decision making principles.
17. *(Original)* The method of Claim 15, wherein the medically related logic is a medical modeling logic that is based on branch/tree logic and hash or hash-like array memory structures.
18. *(Previously amended)* The method of Claim 1, wherein the second database is a medical management knowledgebase including one or more of static and dynamic information from multiple sources pertaining to the health condition.
19. *(Previously amended)* The method of Claim 18, wherein the health condition includes one of a disease or a health issue.
20. *(Previously amended)* The method of Claim 1, wherein the receiving of the patient data over the network comprises:  
maintaining an account associated with the user; and  
updating the account with the patient data related to the health condition.
21. *(Previously amended)* A method for managing diseases and wellness online, the method comprising:  
maintaining an account associated with a user having a health condition;  
receiving over a network a request from the user to access the account;  
composing a number of questions from the account after the user is authenticated;

receiving data from the user in response to the questions, wherein the data includes answers to the questions and diagnostic data if received from a diagnostic test device pertaining to the health condition;

filtering the patient data according to a first database to produce filtered patient data, wherein the first database includes common knowledge database about the health condition and is being constantly updated with other related servers on the network, wherein the filtering of the patient data comprises:

- discarding some of the patient data that is not so related to the health condition; and
- requesting correction or verification on some of the patient data with the user when the patient data appears abnormal according to the first database;

performing an analysis of the patient data to discard some of the patient data that is not so related to the health condition, the analysis including one or more of statistical analysis implemented based on a survey among a group of similar people with respect to the health condition in the filtered data, data variability analysis, and trend forecasting, significance of data, distribution of data, projection of data, computation of trends, linear and non-linear regression techniques, curve-fitting methods, or numerical analyses;

providing directly to the user a medical recommendation of the health condition based on a second database that includes medical decision-making intelligent agents, accesses to clinical research information, related health databases and resources controlled by various professional participants, wherein the medical recommendation includes what the user is suggested to do in regarding to the health condition; and

alerting related parties regarding the user if the health condition is deemed to be attended by professionals.

22. *(Previously amended)* The method of Claim 21, wherein the second database is a medical management knowledgebase including one or more of static and dynamic information from multiple sources pertaining to the health condition.

23. (*Previously amended*) The method of Claim 22, wherein the health condition includes one of a disease or a health issue.
24. (*Original*) The method of Claim 21, wherein the account is maintained in a server coupled to the network, and wherein the request is generated from a terminal device being used by the user, the request being an IP request including an address identifying the server.
25. (*Original*) The method of Claim 24, wherein the terminal device is capable of data communication with the server over the network and includes a display screen to display the medical recommendation.
26. (*Original*) The method of Claim 25, wherein the terminal device is selected from a group consisting of a personal computer, a network enabled cellular phones, a portable computing device and a personal digital assistant.
27. (*Original*) The method of Claim 24, wherein the medical recommendation is in a format of a markup language displayable on the terminal device.
28. (*Original*) The method of Claim 21, wherein the composing of the number of questions comprises generating the questions about the user in reference to the health condition and further in reference to the first database.
29. (*Original*) The method of Claim 21, wherein the performing of the analysis of the patient data comprises:  
obtaining statistic features of the patient data through the statistic analysis;  
determining possible causes related to the health condition out of the patient data in conjunction with the statistic features.
30. (*Previously amended*) The method of Claim 29, wherein the statistical analysis includes one or more of a fundamental statistics, a data variability analysis, correlation analysis, causal analysis and a trend forecasting.

31. *(Original)* The method of Claim 30, wherein some of the statistic features by the fundamental statistics include mean, mode, max, min, ratios and fractions to determine an appropriate sorting algorithm.
32. *(Original)* The method of Claim 30, wherein the variability analysis determines how significant the patient data is as well as the patient data is distributed.
33. *(Original)* The method of Claim 30, wherein the trend forecasting includes a projection of the patient data, computation of trends with respect to the patient data using one or more mathematical methods.
34. *(Previously amended)* The method of Claim 33, wherein the one or more mathematical methods include one or more of linear and non-linear regression techniques, curve-fitting methods and numerical analyses.
35. *(Original)* The method of Claim 21, wherein the performing of the analysis of the patient data comprises, through the medical analysis, evaluating a state of the health condition using a medically related logic, risk stratification, and protocols/algorithms/guidelines that pertain to the health condition.
36. *(Original)* The method of Claim 35, wherein the medically related logic is a medical modeling logic that simulates a medical decision-making process and is based on general medical decision making principles.
37. *(Previously amended)* The method of Claim 35, wherein the medically related logic is a medical modeling logic that is based on branch/tree logic and hash or hash-like array memory structures.
38. *(Previously amended)* A machine-readable medium embodying instructions for execution by a processor, the instructions, when executed by the processor, causing the processor to produce structured documents, the machine-readable medium comprising:

program code for receiving patient data over a network from a user regarding a health condition experienced by the user;

program code for filtering the patient data according to a first database to produce filtered patient data, wherein the filtering program code comprises:

- program code for discarding some of the patient data that is not so related to the health condition; and
- program code for requesting correction or verification on some of the patient data with the user when the patient data appears abnormal according to the first database;

program code for performing an analysis of the patient data, the analysis including one or more of statistical analysis implemented based on a survey among a group of similar people with respect to the health condition in the filtered data, data variability analysis, and trend forecasting, significance of data, distribution of data, projection of data, computation of trends, linear and non-linear regression techniques, curve-fitting methods, or numerical analyses; and

program code for outputting directly to the user, in response to the received patient data, a medical recommendation of the health condition based on a second database that includes medical decision-making intelligent agents, accesses to clinical research information, related health databases and resources controlled by various professional participants, wherein the medical recommendation includes what the user is suggested to do in regarding to the health condition; and

program code for alerting related parties regarding the user if the health condition is deemed to be attended by professionals.

39. *(Original)* The machine-readable medium of Claim 38, wherein the program code for receiving the patient data comprises:

- program code for verifying the user by looking up an account associated with the user;
- program code for requiring the user to set up the account if the account can not be verified; and

program code for composing a number of questions based on the first database in conjunction with the account if the account can be verified.

40. (*Original*) The machine-readable medium of Claim 37, wherein the account lists the health condition about the user and wherein the first database includes common knowledge database about the health condition, the knowledge database being constantly updated with other related servers on the network.

41. (*Original*) The machine-readable medium of Claim 40, wherein the patient data includes answers from the user to the questions.

42. (*Original*) The machine-readable medium of Claim 37, wherein the program code for receiving the patient data comprises program code for receiving diagnostic data from a diagnostic test device.

43. (*Original*) The machine-readable medium of Claim 38, wherein the patient data includes diagnostic data from a diagnostic test device.

44. (*Original*) The machine-readable medium of Claim 38, wherein the first database includes common knowledge database about the health condition, the knowledge database being periodically updated with other related servers on the network, and the program code for filtering the patient data according to the first database comprises program code for discarding some of the patient data that are not so related to the health condition; and program code for requesting correction or verification on other of the patient data when the other of the patient data appears abnormal according to the first database.

45. (*Original*) The machine-readable medium of Claim 44, wherein the analysis includes a statistical analysis and a medical analysis of the patient data.

46. (*Original*) The machine-readable medium of Claim 45, wherein the program code for performing the analysis of the patient data comprises:



program code for obtaining statistical features of the patient data through the statistical analysis; and  
program code for determining possible causes related to the health condition out of the patient data in conjunction with the statistical features.

47. *(Original)* The machine-readable medium of Claim 46, wherein the statistical analysis includes a fundamental statistics, a data variability analysis, and a trend forecasting.

48. *(Original)* The machine-readable medium of Claim 47, wherein some of the statistical features by the fundamental statistics include mean, mode, max, min, ratios and fractions to determine an appropriate sorting algorithm.

49. *(Original)* The machine-readable medium of Claim 47, wherein the variability analysis determines how significant the patient data is as well as the patient data is distributed.

50. *(Previously amended)* The machine-readable medium of Claim 49, wherein the one or more mathematical methods include one or more of linear and non-linear regression techniques, curve-fitting methods and numerical analyses.

51. *(Original)* The machine-readable medium of Claim 45, wherein the program code for performing the analysis of the patient data comprises, through the medical analysis, evaluating a state of the health condition using a medically related logic, risk stratification, and protocols/algorithms/guidelines that pertain to the health condition.

52. *(Original)* The machine-readable medium of Claim 51, wherein the medically related logic is a medical modeling logic that simulates a medical decision-making process and is based on general medical decision making principles.

53. (*Original*) The machine-readable medium of Claim 51, wherein the medically related logic is a medical modeling logic that is based on branch/tree logic and hash or hash-like array memory structures.

54. (*Previously amended*) The machine-readable medium of Claim 38, wherein the second database is a medical management knowledgebase including static and dynamic information from multiple sources pertaining to the health condition.

**IX. EVIDENCE APPENDIX**

None.

**X. RELATED PROCEEDING APPENDIX**

None.

## Summary

The Examiner is respectfully believed to have failed to set forth a *prima facie* case of obviousness. In re *KSR v. Teleflex*, 550 U.S., 127 S. Ct. 1727 (2007), it may be no longer required that the burden of the examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the express teachings or suggestions found in the cited references, or by implications contained in such teachings or suggestions. However, it is believed that the Examiner is not waived the burden to combine proper references to show the indication of possible teaching therein in view of the claims. See the Notice published by USPTO Oct. 10, 2007 "Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.*".

Evidently from the arguments presented above, the combination of Joao, Campbell and Hendee is improper, would render a system, if ever built per the references, practically inoperable. In re Sernaker, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983). "Additionally, when determining obviousness, the claimed invention should be considered as a whole; there is no legally recognizable 'heart' of the invention." The Examiner makes contradictory statements on the limitations in the claims that are erroneously understood or interpreted beyond reasonable construction. It respectfully believed that the Examiner provides a broad unsupported general conclusion of obviousness.

In view of the foregoing, it is respectfully submitted that the combined features in claims 1-54 are neither taught nor suggested by Joao, Campbell and Hendee. Accordingly, the rejections of the pending claims 1-54 under 35 USC 103(a) should be hereby reversed.

Respectfully Submitted,

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